

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A method for increasing the proliferation of thymocytes in a non-human animal comprising altering an endogenous gene encoding p27^{Kip1} in a somatic thymocyte, or a multipotent cell that differentiates into a thymocyte, of the animal to cause a functional deficiency of cyclin-dependent kinase inhibitor function of p27^{Kip1}, thereby increasing the proliferation of thymocytes in the animal.
2. (Currently amended) The method of claim 1, wherein the multipotent cell is a ~~thymocyte or~~ bone marrow cell.
3. (Original) The method of claim 1, wherein the animal is a rodent, pig, sheep, frog, or bovine.
4. (Original) The method of claim 1, wherein the gene encoding p27^{Kip1} is altered by insertion of a positively selectable marker, mutation of the gene encoding p27^{Kip1}, or deletion of the gene encoding p27^{Kip1}.
5. (Original) The method of claim 4, wherein the gene encoding p27^{Kip1} is altered by insertion of a positively selectable marker into the gene.
6. (Original) The method of claim 5, wherein the positively selectable marker encodes neomycin resistance, thymidine kinase, adenine phosphoribosyl transferase, hypoxanthine-guanine phosphoribosyl transferase or dihydrofolate reductase.
7. (Original) The method of claim 6, wherein the positively selectable marker encodes neomycin resistance.

8. (Original) The method of claim 1, further comprising:
introducing a plasmid into the cell, wherein the plasmid comprises the gene encoding p27^{Kip1} altered by insertion of a positively selectable marker.

9. (Currently amended) The method of claim 8, wherein the plasmid further comprises a negatively selectable marker adjacent the altered gene encoding p27^{Kip1}, whereby the distance between the negatively selectable marker and the altered gene encoding p27^{Kip1} is sufficient to allow homologous recombination between the altered gene encoding p27^{Kip1} and [[a]] the endogenous gene encoding p27^{Kip1} in the cell.

10. (Original) The method of claim 9, wherein the negatively selectable marker encodes thymidine kinase.

11. (Original) The method of claim 8, wherein the plasmid is delivered to the cell by electroporation, microinjection or transformation.